Title: NROM MEMORY CELL, MEMORY ARRAY, RELATED DEVICES AND METHODS

REMARKS

Non-Entry of Amendments

Applicant notes that the Advisory Action states that amendments filed August 9, 2006 were not entered. Advisory Action, section 3. Applicant thus enters the present amendments to the claims as they stood in Applicant's prior response of February 27, 2006. Applicant thus expressly requests that the amendments filed August 9, 2006 not be entered.

Rejections Relying on 35 U.S.C. § 102(e)

Applicant notes that certain references used in support of rejections rely on 35 U.S.C. § 102(e). In responding to the rejections, Applicant does not admit that the references are prior art and Applicant specifically reserves the right to swear behind these references at a future date.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-22 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Lin et al.* (U.S. Patent No. 6,093,606). Claims 1-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Mandelman et al.* (U.S. Patent No. 6,541,815 B1). Claims 7, 8, 10, 13, 16 and 18 are canceled hereby without prejudice or disclaimer.

Claim 1, as amended, recites in part, "disposing respective structures each providing an electronic memory function on at least some respective ones of the edge surfaces, each structure having a gate insulator formed on an edge surface and extending to a doped second region, and a control gate formed on the gate insulator." Applicant contends that at least this limitation is neither taught nor suggested by either of the cited references. In particular, neither reference discloses a control gate formed on an insulator structure that extends to any doped region of the substrate.

Claim 11, as amended, recites in part, "disposing non-horizontal structures providing an electronic memory function on the substantially vertical edge surfaces, wherein the non-horizontal structures each comprise an insulator structure having first portions formed on a pair of edge surfaces and a second portion formed on a second region between the pair of edge surfaces, and a control gate coupled to the first and second portions of the insulator structure."

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Applicant contends that at least this limitation is neither taught nor suggested by either of the cited references. In particular, neither reference discloses an insulator structure having first portions formed on a pair of edge surfaces and a second portion formed on a second region between the pair of edge surfaces, with the control gate coupled to both such portions of the insulator structure.

Claim 21, as amended, recites in part, "disposing non-horizontal structures providing an electronic memory function in trenches of a semiconductor substrate, wherein the structures providing the electronic memory function are configured to store more than one bit per gate and are composed of an oxide-nitride-oxide (ONO) gate dielectric formed under a control gate, wherein first oxide layers of the ONO gate dielectrics are formed on sidewalls and bottoms of the trenches, and wherein the control gates are formed on second oxide layers of the ONO gate dielectrics." Applicant contends that at least this limitation is neither taught nor suggested by either of the cited references. In particular, neither reference discloses an ONO structure having a first oxide layer formed on sidewalls and bottoms of a trench and a control gate formed on a second oxide layer of the ONO structure.

In view of the foregoing, Applicant contends that claims 1, 11 and 21 are patentably distinct from the cited references. As claims 2-6 and 9 include all patentable limitations of claim 1, claims 12, 14-15, 17 and 19-20 include all patentable limitations of claim 11, and claim 22 includes all patentable limitations of claim 21, these claims are also believed to be allowable. Applicant thus respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 102, and allowance of claims 1-6, 9, 11-12, 14-15, 17 and 19-22.

CONCLUSION

Claims 1-6, 11-12, 14-15, 17 and 19-21 are amended herein. Claims 7, 8, 10, 13, 16 and 18 are canceled hereby. Claims 1-6, 9, 11-12, 14-15, 17 and 19-22 are now pending.

In view of the above remarks, Applicant believes that all pending claims are in condition for allowance and respectfully requests a Notice of Allowance be issued in this case. Please charge any further fees deemed necessary or credit any overpayment to Deposit Account No. 501373.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2204.

Respectfully submitted,

Date: 30 ASG 06

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